Mermaids Amongst the Cables: The Abstracted Body and the Telegraphic Touch in the Nineteenth Century

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By the beginning of the 1880s, a great deal of the world was already cabled, connected and ‘in touch’. Electrical communications systems were ramifying around the globe and a rapidly extending network of underwater telegraph cabling carried messages along the deep ocean floor. Coded into electrical pulses, these messages travelled thousands of miles at high speed. In R. M. Ballantyne’s 1883 story, The Battery and the Boiler, a nerdy telegraph clerk called Sam excitedly celebrates this novel connectivity:

[We] have now direct communication by submarine cable and land telegraph with every part of Europe; with Canada and the United States; down South America, nearly to Cape Horn; with Africa from Algiers to the Cape of Good Hope; with India from Afghanistan to Ceylon; with China from Peking to Hong-Kong; and down through the Malacca Archipelago, Australia, and Tasmania ... In short ... there isn’t a civilised quarter of the globe which is not tied to us by telegraph, and from which we might not hear any morning of the events of the preceding day.²

Much of the new cabling in the 1880s was undertaken by commercial companies but governments also sponsored cables between the Canary Islands and Senegal; along the coast of French Indochina; and between Sulawesi, Java and Sumatra in the Dutch East Indies. The agents of empire and commerce were pushing their entwined tentacles through the oceans of the world, creating the wired global environment in which we still live and which we still think of as ‘modern’. The 1880s was the metamorphic decade for the acceleration of global electrical communications
technology. In 1869, seven million telegraph messages were sent from Britain, but by the turn of the century this had risen to almost ninety million a year.\(^3\)

As the space of networked global communication became ‘almost completely detached from geographic or navigational space’, distance had to be newly imagined as, contradictorily, both immeasurably vast and rapidly traversed.\(^4\) The emergence of what Paul Virilio has more recently termed ‘tele-contact’ in the 1880s had the effect of electrifying old forms into new ones. This chapter takes two examples of archaic forms, one from visual culture and the other from literary culture: the ancient emblem of the mermaid and the medieval French verse form of the *rondeau* or roundel, and explores how these old forms were put to new uses in the 1880s. These forms were stretched and compressed as they were plugged into a cabled tele-space which no longer mapped onto physical space. The chapter’s concluding section shows the contiguity of the aesthetic to the political and turns to look very briefly at the politics of liberalism and the work of coding that went into creating an abstract model of ‘citizenship’ in the 1880s. It was in this decade that the aestheticisation of the political space of ‘democracy’ put pressure on representation in every medium. Symptomatic of this shift is the avant-garde move away from realism and towards abstraction and pattern, but realism also shifted its ground in the 1880s, looking for more effective ways of representing democracy. Realist and avant-garde writers and painters developed stylistic strategies which attempted to organise plurality without hierarchy, but as a result they clearly register the strains of a new calibration of both distance and proximity.

**Mermaids and Cables**

Evelyn De Morgan’s *The Sea Maidens* (sometimes called *The Sea Sisters*) of 1885–6 was exhibited at the Institute of Painters in Oil Colours in 1886, the same year that Edward Burne-Jones’s *The Depths of the Sea* was shown at the Royal Academy. *The Depths of the Sea* was subsequently exhibited at the Paris Exposition Universelle in 1889. Both were self-consciously ‘modern’ paintings. Horace, in his *Ars Poetica*, identified a mermaid as a ‘Monster with woman’s head above and fishy extremity below’, and since classical times the mermaid has been used as a type of category confusion.\(^5\) Mermaids resurfaced in the second half of the nineteenth century, reimagined as the deep sea came into new focus. Underwater cabling necessitated deep-sea soundings, and discoveries of new forms of life on the seabed led
to the celebrated *Challenger* expedition of 1872–6, the ‘principal object of [which was] . . . to investigate the physical and biological condition of the great ocean basin.’° *Challenger* dredged up more than four thousand new species from the ocean floor, and illustrations and descriptions of these strange newly discovered forms were serially published throughout the 1880s in the popular as well as the scientific press.° It transpired that the sea, which was previously assumed to be an ‘azoic zone’, empty and sterile, was instead very full, a scientific discovery that opened the way to fantasies of the deep ocean teeming with wonderful and mysterious creatures. Newspaper and periodical reports of the heroics involved in laying submarine cables in turbulent seas, and illustrations of the weird new life forms the expeditions were dredging up created a public enthusiasm for oceanography which washed together with the idea of distant communication. The figure of the mermaid became newly charged as a sign of the unknown forms of life deep at the bottom of the sea. On board the *Challenger* itself, one of the ship’s crew, Benjamin Shephard, painted mermaids helping to fill the ship’s drag nets with specimens of sea life in his sketchbook. Cartoons of mermaids obstructing the cable-laying appeared in the press.° It is striking that mermaids are shown more often underwater in this period than previously. Burne-Jones even borrowed a water tank from an artist-friend to experiment with the effects of light through deep water when he was working on *The Depths of the Sea*. The title of his painting was topical. Charles Wyville Thomson, the Scientific Director of the *Challenger* expedition, had published his best-selling *The Depths of the Sea* in 1873.° In the last decades of the nineteenth century, the hybridity and disturbing instability of the form of a half fish/half woman, half scales and half skin, reflects some of the challenges to form and bodily cohesion produced by the new communications technologies.

‘There are five mermaid sisters, and all are the very replica of each other. Let us be thankful that earth maidens have some variety of countenance.’°° So wrote one critic of De Morgan’s painting. And indeed, the sea maidens do seem repetitive, like clones – one almost a repeat of the next – a series or sequence – a kind of linked chain – or even a cable.°° Their linked pattern creates a series of relay-points, like that of the telegraph system which relied on relays to recharge and re-send messages across long distances. The blankness of expression of these mermaid sisters, their affectlessness, is striking. Intriguing too, is the way in which they seem both to be touching and not touching – or perhaps to be touching while not being touched, not feeling or responding to being touched. If they are suggestive of a submarine cable, the cable is tangled, broken and disarticulated.
The connection breaks off in the middle of the sea. De Morgan’s interest in the chain created by the linked bodies of these creatures, make them the embodiment of pattern: a coded abstraction, rather than portraits of individualised beings. When it was first exhibited, the painting was read as referring to a story by Hans Christian Andersen, ‘The Little Sea Maid’, but purposeful narrative or ‘message’ seems lost in the repetitive system of bodies here. The composition raises questions about narrative progression and repetition which become questions for both artists and writers during this decade. If the repetition of bodies suggests a kind of rhyming, are these rhymes too close to create meaning? Can identical elements be said to rhyme, or can they only repeat? And even if they are not identical, but they look the same, can homonyms truly rhyme? The mermaids are both bodily and ethereal because flesh has become a transmitter while personality is effaced and individuality dissolved. Such standardised bodily forms say more about the medium of repetition, relay and return than about narrative message. Wendy Chun has argued for the historical importance of coding to both biology and computer technology, which she describes as intertwined like ‘two strands of a constantly unravelling double helix’, a simile which is anachronistic but useful. In the 1880s, the science of both genetics and digital processing were in their infancies, but nevertheless they were informing each other from the start. Understanding the significance of the mathematics and theory that permitted ‘the emergence of new forms of control that encourage, even thrive on, limited uncertainty’, is important to understanding the scale and significance of the aesthetic and political shift in this decade.

The positionality of bodies in De Morgan’s painting represents transmission across distance. What is witnessed here is not an evacuation of form so much as an abstraction in which bodies are made to stand for distance rather than for proximity. De Morgan’s paintings’ interest in transmission from far-off places owes something to her commitment to spiritualism. With her husband, the ceramicist, William De Morgan, she set time aside almost every day to channel automatic writing from the spirit world. The spiritualist interest in electricity and in the transmission and reception of signals and coded messages made De Morgan peculiarly sensitive to what Paul Virilio was later to call ‘tele-contact’. How do we connect with those we cannot touch, will never touch – what attenuation of communication must happen for this to be possible? How slimmed down and coded must our messages be in order to be light enough to travel such an immense distance? Where are the boundaries of our tele-world? The horizon is significantly obscured by light in De Morgan’s picture, so
that the visible limit to distance is veiled and the painting fades into the faraway unknown.

The haptic nature of telegraph technologies and ‘the reorganization of the senses effected by the introduction of electrical telegraphy’ has been noticed by Christopher Keep, who suggests that the stable body is dissolved by interactive communications technologies. The body is abstracted in both these pictures not because the design demands their abstraction but because the body is being dissolved by the pressures of late-century technologies of communication. The reductive abstraction necessary for mobility and transmission on a global scale scrambles the body and distorts it. It is this dissolution that creates what Steve Connor has called, ‘the nausea of edgeless exposure that follows from having broken out of our skin’. It was already possible to imagine in the 1880s that the ‘freedom’ of distributed consciousness across the wires might produce a vertiginous alienation.

Skin

Burne-Jones’s *The Depths of the Sea* was particularly admired when it was first exhibited in 1886 for its treatment of skin. The *Art Chronicle* admired ‘[t]he softly-modelled flesh, – warm, brown in the man’s naked body, pale and gleaming in the sinuous contours of the Mermaid’. Steven Connor has suggested that a preoccupation with skin is a sign of the shock of modernity, ‘assailed routinely by shock and sensory discomfiture of every kind, a modern subjectivity comes to be organised around the imperative need to filter, screen, and block out excitations’. But skin is not just an insulator, it is also a conductor. Skin does not only enclose or contain the body, it also exposes it to other bodies, living and inanimate. The close embrace in the image speaks of the will to communicate, while a deadly lack of conductivity means that no energy is being transmitted between these two bodies. If we think of the two figures underwater as the cathode and anode of a primitive battery cell, this battery has run out of power. The male body in the Burne-Jones is partly abstracted by not being fully present (being, in fact, dead): an empty skin.

The picture was accompanied by a quotation from Virgil which appeared in the catalogue: ‘Habes tota quod mente petisti, Infelix’; which translates as: ‘Unhappy is s/he who gets what s/he desires.’ Because of the gender neutrality of the Latin, it is not clear whether the mermaid or her dead human prey are the most ‘infelix’. The picture only shows us a fatal misunderstanding between two foreign species. So do these
paintings offer us a purely pessimistic view of the possibilities of connection to the remote ‘other’ in this period? Or are they asking a more complicated question about the ethical limits of the global tele-world? The irony of communication technologies across vast distances is that connection is not necessarily mutually constitutive, but can be mutually reductive. Although submarine cables were celebrated as extensions of the national body – ‘[t]he hands of human brotherhood / Shall clasp beneath the sea’ – in reality, communications technology that crossed political or racial divides could quickly become a violent instrument of control rather than cementing the ‘bond of perpetual peace and friendship’.  

‘It is not scaly’, the polyps agree among themselves, in Andersen’s 1871 story about the Atlantic Cable, ‘The Great Sea Serpent’: ‘I don’t think it has any skin either.’ But in fact the steel armouring, the gutta-percha and hemp layers of insulation and the copper core of the cable were described in terms of organic form at the time and the cable itself was represented as a kind of body with a neurological function. The ‘nerve messages’ of telegraphy were sometimes obstructed by problems with the body of the cable, which was not always properly insulated, or was eaten into by teredo worms or damaged by anchors dragging along the seafloor. The affordances of its materials created limits to its functionality and if it was stretched too tight across the seabed, it broke. Furthermore, problems with overheating and resistance in the cables had the effect of making the coded messages stretch out or distort upon their reception. ‘[L]etters came’, reported one engineer, ‘but they were so mixed that it was in many cases impossible to make any sense out of them . . . The more the operator tried to control the letters, the more erratic they became.’ The problem of retardation was particularly acute for submarine cables, which initially could not use the relay technology developed for the overland cables by Samuel Morse and Charles Wheatstone. William Thomson (later Lord Kelvin)’s ‘theoretical study of transmission through insulated cables concluded that a pulse which started out more or less rectangular in form would emerge rounded and elongated’. The distortion and elongation of the form of the resultant message proved a serious problem. Different coding systems were developed to mitigate these problems of transmission by ‘the reduction in uncertainty in receiving a communication’. These codes moved towards digitised and sequential packets of ‘information’ and away from a continuous analogue model of narrative. Code is information designed to travel. Information emerged as ‘a uniform and morselized substance’, which was ‘essentially corpuscular, like sand or succotash’, as Geoffrey Nunberg has suggested. Could we begin to see coding as an
important feature of late-century aesthetics? Is the telegraphic interest in coding moving the aesthetic towards more deliberate coding and patterning which demands an equally deliberate de-encryption? Is there an aesthetics of compression? Certainly, it seems that writers and artists were beginning to appreciate the ways in which the materiality of the cable network was not just making available new ways of transmitting information but was constructing new forms of knowledge too. As N. Katherine Hales has remarked, ‘[m]apping cognition onto the material world transforms as well as extends what cognition can do.’26 The cables extended under the sea, as Kipling wrote in his 1893 poem ‘The Deep-Sea Cables,’ carrying ‘Words, and the words of men, [which] flicker and flutter and beat —’: the code they transmitted gave language a new mobility and agency, creating new flickering, fluttering and beating rhythms for human communication. Inevitably, the ramifying cable network spawned new fantasies of an intelligent and interactive environment.27 And if Burne-Jones and Evelyn De Morgan explored this encounter with unmapped knowledges in paint, Algernon Charles Swinburne did it with words.

**Swinburne’s Roundness: A Century of Roundels (1883)**

‘Farthest down the serpent stretches itself, a world-serpent of blessing, which bites its tail as it encircles the earth’, wrote Hans Christian Andersen about the undersea cable.28 The ‘ouroboros’ or the serpent-biting-its-tail is an ancient emblem of circularity, enclosure, finitude and infinitude, and it was famously rolled and compressed by Coleridge into a miniature aesthetic theory: ‘The common end of all narrative, nay, of all, Poems is to convert a series into a Whole: to make those Events, which in real or imagined History move on in a strait Line, assume to our Understandings a circular motion – the snake with it’s Tail in it’s Mouth.’29 Coleridge’s narratological interest is in the relationship of the linear to the circular, and the challenge which repetition and return create for the structural logic of the series. The temporality of Coleridge’s dictum is complex – the snake looks, of course, backwards and forwards, but it is only in retrospect that the series can be apprehended as a circle, the ‘end of all narrative’ is a statement of purpose that can only be experienced in retrospect.

In 1883, the most self-consciously belated of the late Romantic poets, Algernon Charles Swinburne, turned his attention to roundness and published a collection of one hundred roundels. After reading this
Century of Roundels, apparently Tennyson announced that, ‘Swinburne is a reed through which all things blow into music’. The idea of the poet’s body as a musical or scientific instrument is a suggestive one in an age in which the electric telegraph had been developed by a musical instrument maker, Charles Wheatstone. Wheatstone had moved seamlessly from making acoustic instruments for the production of music to making scientific instruments for the transmission of information. Music and information remained common categories for Swinburne, who self-consciously modelled his poetry as an instrument or medium of transmission.

To begin at the end. ‘Envoi’ is the last in the 1883 sequence of roundels. As convention decrees, it sends the poems out into the world to meet their varied and uncertain fates:

**ENVOI**
Fly, white butterflies, out to sea,  
Frail pale wings for the winds to try,  
Small white wings that we scarce can see  
Fly.

Here and there may a chance-caught eye  
Note in a score of you twain or three  
Brighter or darker of tinge or dye.

Some fly light as a laugh of glee,  
Some fly soft as a low long sigh:  
All to the haven where each would be  
Fly.

The little white butterflies are his small and delicate roundels, almost weightless, ‘tried by the winds’ and risking dispersal as they fly far out to sea until they drop out of sight. Swinburne’s final roundel of hopeful transmission reminds us that ‘[h]is scale is macrocosmic’ and his distances are often vast. But Swinburne liked to miniaturise his roundels, describing *A Century* as ‘a little book of songs’ and ‘a tiny new book of songs or songlets’, and Herbert Tucker has beautifully described Swinburne’s roundel form as ‘[a] centripetal involute, the form curls into itself, by an ever-inward (plus extra) economy that peculiarly justifies roundel number 34’s sublime rhetoric of the “immeasurable” character of what abides “within”’. Against the centripetal force created by the roundel’s tightly curled structure, Swinburne pits the centrifugal force of the sea, which is mentioned more than thirty times across the sequence, along with wide vistas of waves, waters and harbours. After all, ‘Plus Intra’ is balanced by
another roundel in the series, ‘Plus Ultra’ (no. 13) with the returning refrain, ‘Far beyond’. The motion inwards is always balanced by an expansive movement outwards into unbounded space.

It was this diffusive amplitude to which T. S. Eliot famously objected in *The Sacred Wood*, when he said that in Swinburne’s poems, ‘language, uprooted, has adapted itself to an independent life of atmospheric nourishment’: yet in the ‘Envoi’, Swinburne deliberately seems to dramatise just such an expansive aerial life for his poems.34 Despite his critical tone, Eliot’s idea of ‘atmospheric nourishment’ is exactly right: this is language unmoored and sent flying across space, drawing its energy from the crackling electricity in the air. If the line of criticism that has charged Swinburne with ‘florid impotence’ and characterised him as ‘a poet of disembodied words’ was missing his interest in sense-data and bodily experience, more recent critics, eager to rescue him from his modernist detractors, may be in danger of overemphasising his engagement with the material world to the detriment of his brilliant facility for abstraction.35 Swinburne is interested in each equally: his verse seeks to find its balance in the exquisite tension between bodiliness and abstraction. As both Evelyn De Morgan and Burne-Jones understood, the 1880s brought this tension into sharp focus with the stretching out of communication and attenuation of language along the new electrical networks. Again, T. S. Eliot was precise when he complained about ‘emotion reinforced, not by intensification, but by expansion’ in Swinburne’s work.36 Dorothy Mermin felt that this expansive style, ‘has deterred critics from seeking the hard structure of meaning behind its dazzling impulsions of verbal energy’.37 But Swinburne does not ask us to ‘see behind’ the energy of his poetry to the underlying structure because the structure and the energy of his verse do not constitute two separable elements. For Swinburne energy is both his subject and his medium. Stephanie Kuduk Weiner has suggested that “Envoi” is interested in the limits of sense perception, beyond which lies conjecture or surmise rather than true knowledge, but this seems too subjectivised a model of the sensorium for Swinburne’s verse.38 In ‘In Guernsey III’ (no. 94) he declares, ‘Are we not as waves of the water, as notes of the song?’ The material and dematerialised properties of energy transmitting through matter are expressive of his human subjects as much as they are of the sea and the wind.

Swinburne’s extraordinary facility with classical, foreign and English verse forms meant that he could reach for any number of technical materials with which to build his poems. George Saintsbury in his 1895 *History of English Prosody* claimed that Swinburne knew ‘Every weapon and
every sleight of the English poet – equivalence and substitution, alternation and repetition, rhymes and rhymeless suspension of sound, volley and check of verse, stanza construction, line- and pause-moulding, foot-conjunction and contrast’. 39 Swinburne had repurposed his eleven-line roundel from the medieval French rondeau, by dismantling and rearranging the repeated refrain, or rentrement. 40 ‘A workman can only be known by his work’, Swinburne writes in his 1880 A Study of Shakespeare, and ‘as the technical work of the painter appeals to the eye, so the technical work of a poet appeals to the ear’. 41 So when Rikky Rooksby says that Swinburne’s ‘vision of nature is quite free of his century’s mechanistic nuts-and-bolts view of the physical universe’, he is not quite right. 42 Although Rooksby intends this as a compliment, this view of Swinburne shares something of T. S. Eliot’s criticism that, ‘the meaning and the sound are one thing’ and ‘the object has ceased to exist, because the meaning itself is merely the hallucination of meaning’. 43 Both hear Swinburne’s verse as disjunct from the material world of objects and bodies, although in Rooksby’s reading this is a source of transcendence, and in Eliot’s it is an unforgiveable mystification. But both are overlooking the material qualities of technique. If, as Simon Jarvis suggests, ‘poems are not only representations but also quite singular machines, devices for body modification’, we might have to think differently about Swinburne’s poems and the way in which they are put together. 44

In ‘The Roundel’ (no. 63) the poem itself announces that it is a device:

THE ROUNDEL

A roundel is wrought as a ring or a starbright sphere,
With craft of delight and with cunning of sound unsought,
That the heart of the hearer may smile if to pleasure his ear
A roundel is wrought.

Its jewel of music is carven of all or of aught –
Love, laughter, or mourning – remembrance of rapture or fear –
That fancy may fashion to hang in the ear of thought.

As a bird’s quick song runs round, and the hearts in us hear
Pause answer to pause, and again the same strain caught,
So moves the device whence, round as a pearl or tear,
A roundel is wrought.

This is a poem which takes the process of its own making as its subject. The materiality of the images at play here is striking: of carving, of cunning craft, of an object wrought and fashioned, of a device: the crafting of a machine designed to carry messages. In his essay ‘A Plea for Certain
Forms of Exotic Verse’, published in 1877, Gosse said that modern poets are ‘fashioning rather than reflecting, creators and not contemplators’ and he adds that Swinburne’s generation have undergone ‘a reaction in favour of form’. The nuts and bolts are almost palpable as the medium is constructed even as we speak the poem. The message is purely information – it can be ‘all’ or ‘aught’, love, laughter, rapture or fear. It can be birdsong trilling back and forth. Swinburne is more interested in mediation than meaning here, and, just as codes for programming machines have nothing to do with ‘meaning’ as such, because, ‘[t]hese semantic aspects of communication are irrelevant to the engineering problem’, this poem is more about its own engineering than it is about love, laughter, rapture or fear.

Swinburne’s synaesthetics, the ‘hearing heart’ and ‘the ear of thought’ in ‘The Roundel’, seem to describe a body that is discomposed and abstracted. But if it represents the body as scrambled and turned inside-out, the poem is almost obsessive in its fantasy of its own containment. It is a sealed skin, a closed system, or a ‘device’ to transmit the perfect signal, without resistance, noise or distortion. But language is not ‘disembodied’, as Eliot would have it. Neither is it quite, as Jerome McGann argues, ‘a condition where thought and sensation seem merely the reflecting aspects of a single, identical activity’. It seems rather that language is passing through a machine and undergoing a process of coding here, if code is language compressed, packaged and designed for travel. Swinburne makes the poem materialise itself, but it also materialises its affect as ‘round as a pearl or tear’. Pearls and tears are both produced within the oyster or human body, and they subsequently both emerge and detach themselves from the body that made them. The ‘tear’ that is pushed out of the poem in its penultimate line, is both produced by it and is symbolic of the means of its own production. ‘The Roundel’ is a work of autopoiesis, a self-generating organism which, according to twenty-first-century systems theory, is distinguished by ‘a fundamental complementarity between the structure and the function of a system’. It is a poem that makes a poem.

Taken as a whole, Swinburne’s Century of Roundels dramatises the contradictions between the series and the whole, or Coleridge’s ‘strait Line’ and the circle. After all, a hundred of these ‘little’ eleven-line poems add up to more than one thousand lines of verse. Adding is part of Swinburne’s game. Adding, multiplying, accreting: but all within the strict confines of rhyme, to build expansion out of very limited materials. Isobel Armstrong has brilliantly parsed the code of Swinburne’s lines, pointing out that his ‘habit of doubling a word with an alliterative
synonym, and doubling that synonymous double with a synonymous alliterative phrase, is a way of dissolving the boundaries of language by coalescing distinctions of sound and meaning. The synonym chain produces an endless chain of substitution in which doubled words and phrases blur.\textsuperscript{52} Read together across the sequence of a hundred links, the self-generating roundels themselves connect into a chain.\textsuperscript{53} The start of the chain is the dedication to Christina Rossetti, itself a roundel, with the *rentrement*, ‘Songs light as these’, which is met, of course, one hundred roundels later by the pale butterflies flying light in the ‘Envoi’. The *Century’s* tail is in its mouth. Christina Rossetti was inspired by Swinburne’s ‘chain letter’ or ‘chain song’ to take up the roundel form herself, and its transmission from one poet to another only heightens its autopoietic power.\textsuperscript{54} George Saintsbury marvelled at Swinburne’s poetic range: ‘[h]e seems to revel in variety: the stanzas actually hide, though they never falsify, their heredity of norm.’\textsuperscript{55} The idea of heredity and generation here is a helpful one for thinking about the work of programming undertaken by Swinburne’s roundels. Herbert Tucker diagnosed ‘the roundel’s mandate of formal return [which] virtually spells out the code of the operating system’.\textsuperscript{56} The system consists of a first circuit, then a second circuit, twice as long. In the 1880s, the first serious scientific work was appearing on genetic information and Ada Lovelace and Charles Babbage’s groundbreaking work in the development of a programmable calculating engine was being taken up in electrical engineering. Programming is about control, and about working within a closed system of limited uncertainty. Variation is possible, as consequences are not always predictable, but they are ultimately limited. To be programmable, a machine ‘has to follow precisely and automatically a series of coded instructions’.\textsuperscript{57} Herbert Tucker describes a roundel as ‘a double whorl displaying geometric increase’, but this geometry calls to mind a flat diagram, whereas Swinburne’s roundels seem rather to be machines or engines in motion.\textsuperscript{58} The difference between the moving machine and the inert diagram is the performance of process in time, and Swinburne is always intensely concerned with the passing of time.

‘Bound am I with time as with a tether’ cries the poet in ‘Past Days I’ (no. 21). The title of *A Century of Roundels* refers to a category of time. The century in question is ambivalent, however, as the *rondeau* belongs to the medieval period, but Swinburne is reworking it in the nineteenth century, so it is unclear which century is the century of roundels, and this doubleness may well be intentional. And if the title is taken seriously, how
does the idea of the century calibrate with the sequence of one hundred roundels? Is each roundel holding the place of a year? If so, the durational metaphor seems disproportionate: this is a century which passes very fast, speeding by, ‘flown as flies the blown foam’s feather’ (‘Past Days I’, no. 21). Yet the roundels also pause on moments of great stillness and, frequently, loss. For example, ‘A Dead Friend VII’ opens, ‘Past as music fades’ (no. 20). Finally, the collection forces us to reflect on what a ‘century’ might mean. A Century of Roundels is full of numbers: the ‘Three times thrice’ of the three poems on ‘A Ninth Birthday’ (nos. 56–58); the two roundels both called ‘One of Twain’ (nos. 43–44); and the mini-series of ‘Three Faces’ (nos. 70–73) are just some examples. But the collection also calls quantification into doubt. Swinburne’s metre is fiercely numbered but it is not mimetic. Critics have long noticed ‘the quality of speed’ in Swinburne’s verse, and the experience of reading Swinburne, and particularly of reading him aloud, brings space and time into a full collision in his work, making a series of accelerations and sudden decelerations appear across the whole sequence.59 Reading A Century of Roundels is a chequered and unsettling experience because Swinburne introduces so many false series and imperfect collections within the sequence. The insistent numbering from one to a hundred impels a forward reading, but the sequence of sequences (‘A Dead Friend’, seven poems, nos. 14–20; ‘Past Days’, three poems, nos. 21–23; ‘Autumn and Winter’, four poems, nos. 24–27; ‘The Death of Richard Wagner’, three poems, nos. 28–30, etc) play us false, each micro-series fizzling out as a new one starts, without much of a progressive sense of the accretion of meaning. ‘Two Preludes’ (nos. 31–32), for example, doubly confound the category of the ‘Prelude’ by being two, and by appearing in the middle of a larger work. The rhythm of the whole Century is agonistic and trips us up, brings us up against ourselves hard. Simon Jarvis has suggested that ‘prosody opposes the reality of the duration of our experience’, and Swinburne’s brilliance in prosody creates not a smooth analogue of time or duration, but instead manufactures rhythms which are forcefully opposed and resistant to our expectations.60 The atonalities and the ‘endless chain of substitution in which doubled words and phrases blur’, function in Swinburne’s verse like digital coding, exploiting small variations to organise information, if information is ‘the difference that makes a difference’.61

Conclusion: Liberal Abstraction, Material Return

Technological and biological experiments and theories were informing one another in the second half of the nineteenth century, particularly through
new ideas about coding. While it would be irresponsible to represent late nineteenth-century media as existing only to offer a pale prehistory of the twentieth-century computer and the cyborg, it is nevertheless significant how, from their inception in the nineteenth century, electronic media have been imagined as existing somewhere between the material and the immaterial. If we trace the material form of the telegraph, we will inevitably be returned to the body, and we may then be able to uncover the dynamic transactions and intersections between bodies that are the hidden matter of the media. Swinburne positions his verse at the interface between the bodily and the abstract in order to represent the process of mediation, showing how matter (both in the sense of the material, but also what matters) is always at risk of disassembling and dissolving under the pressure of vast global distances.

The most self-consciously modern of the painting and poetry of the 1880s is struggling with the paradoxical problem of the embodiment of abstraction. This is an urgent political problem at precisely this moment too, as the role and function of the British state was being reconsidered in the face of increasing poverty and social tension. It is no accident that, ‘[t]he history of the social survey is usually dated in Britain to the 1880s.’ In the 1880s, the ‘new liberalism’ is trying to find a representative code that will stand in for the many, for the mass of individual subjects. Indeed, a powerful critique of liberalism has always centred on its disavowal of embodied experience in favour of disembodied abstraction. Elaine Hadley argues in Living Liberalism, that ‘gendered and classed bodies’ were not so much ignored or disavowed by liberalism, but rather were what ‘the practices of liberal cognition aimed to replace with abstracted bodies thinking disinterested thoughts in an abstracted time and place of serene meditation’. Liberalism, then, is attempting a work of coding by abstracting the body, with the aim of abstracting and processing social information before feeding it back into the politico-social loop. But during the 1880s the pressures of democracy kept forcing the body violently back into the argument. Bodies were very politically visible, for example on 13 November 1887 on ‘Bloody Sunday’, when the Metropolitan Police and the army brutally attacked working-class protesters in Trafalgar Square who had gathered to protest against the treatment of Ireland by the British Government and, more generally, to express their anger about unemployment in Ireland and England. The Third Reform Act of 1884 did not end the extended political struggle over working-class ‘representation’ which had begun in the 1830s, and grievances were exacerbated by the economic depression which began in the late 1870s and deepened in the 1880s.
Burne-Jones’s *The Depths of the Sea*, Evelyn De Morgan’s *The Sea Maidens* and Swinburne’s *A Century of Roundels* all pose sharp questions about the relation of structure to meaning, of surface to depth, and of transmission to communication. These were fundamental questions for aesthetics, but they were also political questions. For it was very unclear what was to be the fate of the individual subject or citizen, as Britain entered the new global modernity of the 1880s, a global modernity that was both imaginary and, at the same time, profoundly material.

Notes

2. R. M. Ballantyne, *The Battery and the Boiler: Or Adventures in the Laying of Submarine Cable* (London: James Nisbett, 1883), 407. This account is not far from the truth, according to the historian Roland Wenzlhuemer: ‘By 1880 . . . the transatlantic and intra-European cable systems had been further upgraded. Connections across the Atlantic, the North Sea and the Mediterranean had multiplied. In Asia, the network had been extended eastwards to incorporate South East Asia, the Chinese coast and Japan. Port Darwin in Australia had been brought into telegraphic communication with Java, and therefore with the world, in 1871. Five years later, another cable connected New Zealand with Australia. Since 1874, Europe had also been in direct communication with South America via Madeira and the Cape Verde Islands. The cable network in the Caribbean had also been extended. And, in 1879, a cable was eventually laid along the African east coast, connecting the South African port city of Durban with the submarine cable link between Europe and Asia at Aden, thus bringing global telegraphy to sub-Saharan Africa.’ He adds that by the end of the 1880s, the African West Coast had been cabled, and South America was joined up with the Caribbean system. See Roland Wenzlhuemer, *Connecting the Nineteenth-Century World: The Telegraph and Globalization* (Cambridge University Press, 2013), 113.


7. The official reports of the expedition’s immense findings were being published all through the 1880s, from 1877 to 1895. For more on the *Challenger* expedition and its effect on the Victorian imagination, see Clare Pettitt, ‘At Sea’, in Adelene Buckland and Sadiah Qureshi, eds., *Time Travellers: Victorian Perspectives on the Past* (University of Chicago Press, forthcoming).

8. Cartoons of mermaids under the sea were appearing from the late 1850s when repeated attempts were being made to lay a transatlantic cable, only successful in 1866. For example, Neptune is pictured shouting at mermaids swinging on the cable: ‘Aho-o-o-oy, there! Get off o’that ’ere cable, can’t yer – that’s the way t’other one was wrecked!’ in *Punch* (5 August 1865): 46. A more sinister image, ‘The Diver in Search of the Atlantic Cable Gets into Hot Water’, shows a diver obstructed and entangled in all the hybridised, unfamiliar and sinister bodily forms of the sea. See *Punch* (6 January 1866): n.p.


23. Over time, the coupling of automatic senders with C. F. Varley’s ‘curbing capacitors’, and the introduction of duplexing, or two-way traffic on the line, effectively solved the problem of ‘retardation of the signals’.
27. Rudyard Kipling’s ‘The Deep-Sea Cables’ was first published in the *English Illustrated Magazine* (May 1893) as one of the six sub-sectional poems to ‘A Song of the English’, and then collected in *The Seven Seas* (London: Methuen, 1896), 9–10.


40. ‘The Swinburne roundel is a three-stanza, two-rhyme poem of 11 lines on the pattern abaR bab abaR where R stands for the rentrement. The rentrement, as in the roundel, is a shortened line, a word or phrase that repeats in the manner of a refrain; in the Swinburne roundel the rentrement usually rhymes with the b lines of the poem.’ Roland Greene et al., eds., *The Princeton Encyclopedia of Poetry and Poetics: Fourth Edition* (Princeton University Press, 2012), 1227.


47. Jason Rudy has described Swinburne’s ‘physiological poetics’ and Christopher Keep has argued that ‘[t]he electrical age . . . was to belong to the ear and not to the eye, to the sensing body and not to the reasoning mind.’ See Jason R. Rudy, *Electric Meters: Victorian Physiological Poetics* (Athens, OH: Ohio University Press, 2009), 141, and Keep, ‘Touching at a Distance’, 241.


53. Herbert F. Tucker has also remarked on the relationship of the miniature detail of each poem with the ‘roominess’ of the full collection of one hundred. See Tucker, ‘What Goes Around’, 127.


